FIG. 1

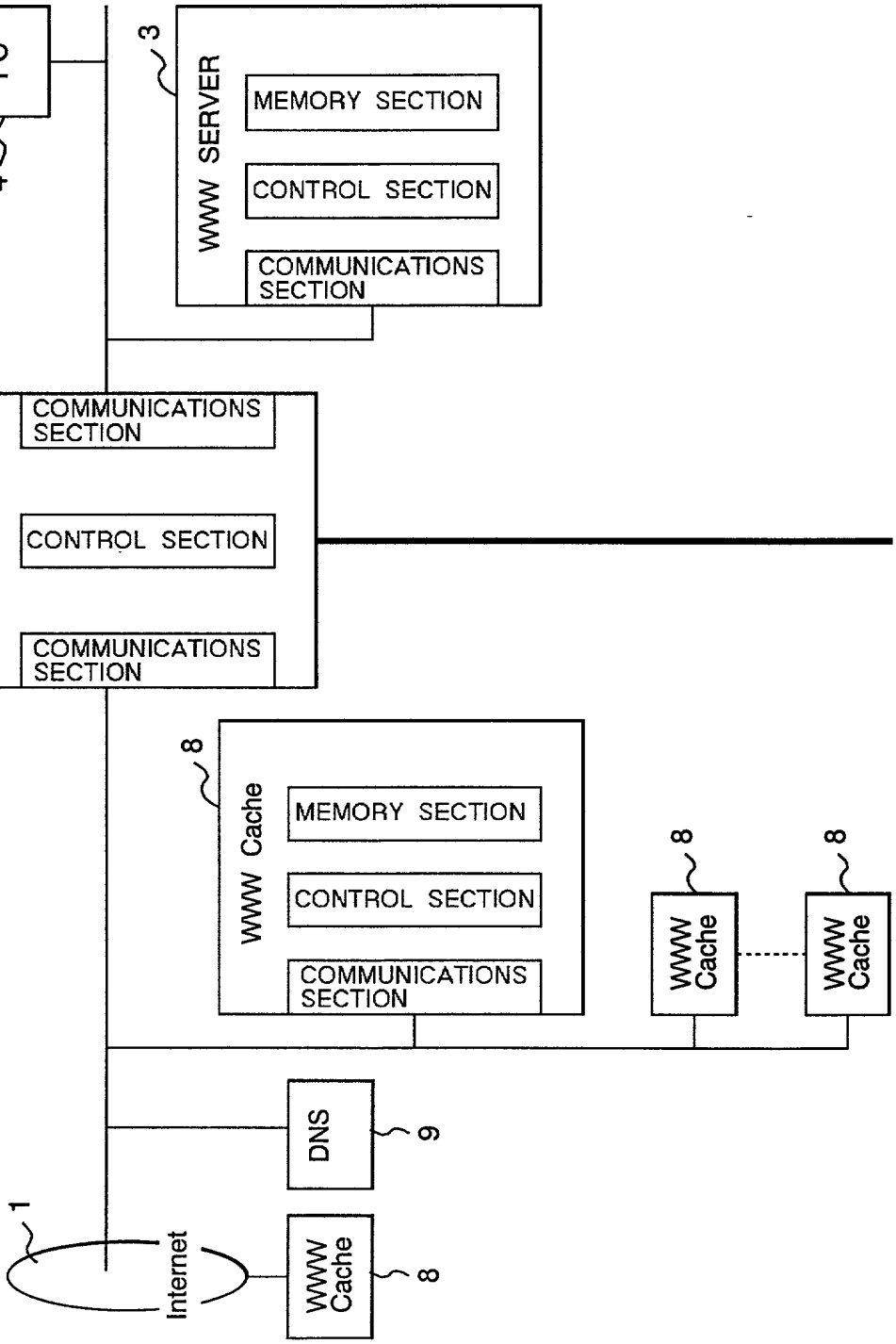

PC
4
LAN
3
WWW SERVER
MEMORY SECTION
CONTROL SECTION
COMMUNICATIONS SECTION
2
Fire Wall
COMMUNICATIONS SECTION
CONTROL SECTION
COMMUNICATIONS SECTION
8
WWW Cache
MEMORY SECTION
CONTROL SECTION
COMMUNICATIONS SECTION
8
WWW Cache
8
WWW Cache
DNS
9
1
Internet
WWW Cache
8

FIG. 2

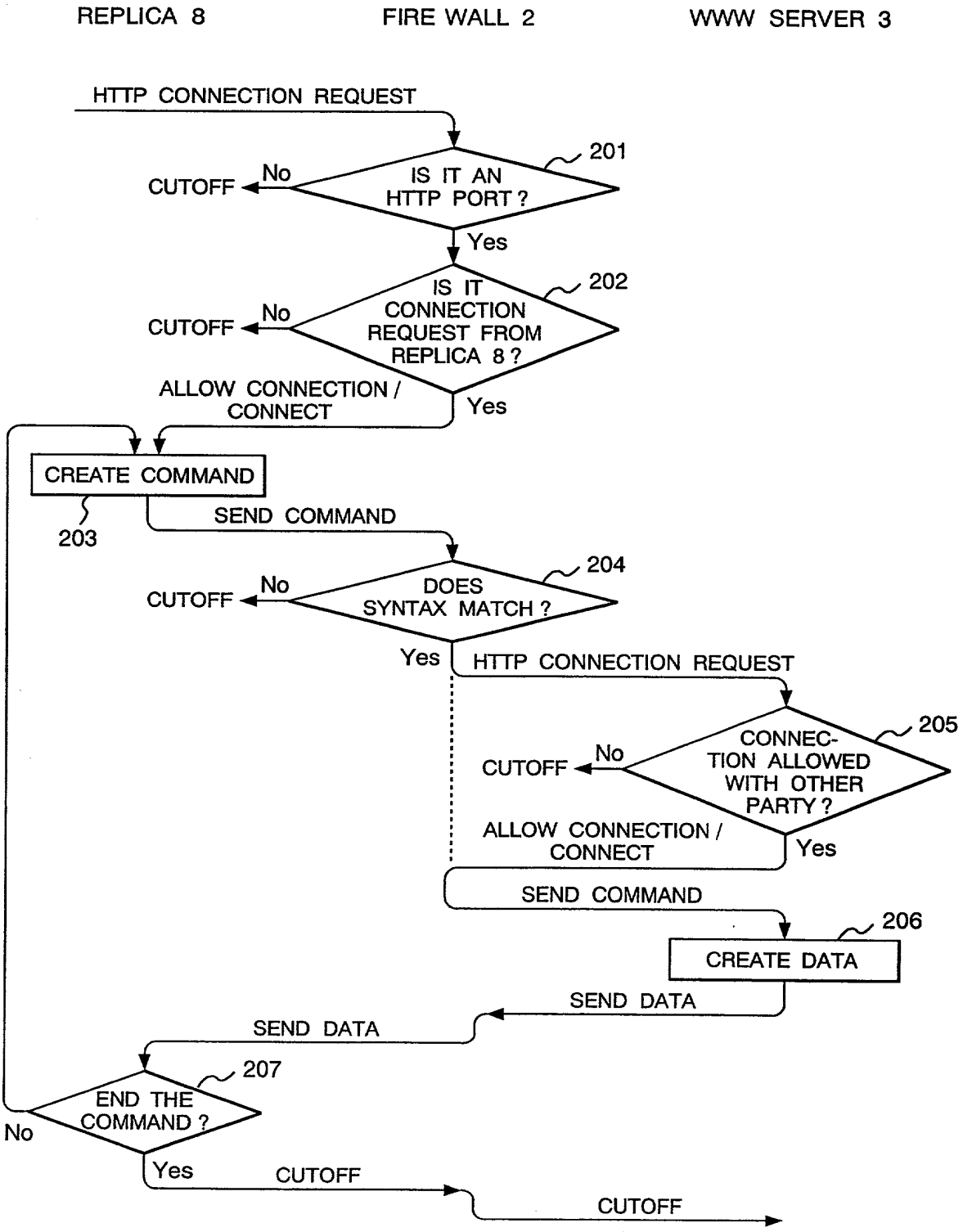

REPLICA 8
FIRE WALL 2
WWW SERVER 3
HTTP CONNECTION REQUEST
201
IS IT AN HTTP PORT ?
No
CUTOFF
Yes
202
IS IT CONNECTION REQUEST FROM REPLICA 8 ?
No
CUTOFF
ALLOW CONNECTION / CONNECT
Yes
CREATE COMMAND
203
SEND COMMAND
204
DOES SYNTAX MATCH ?
No
CUTOFF
Yes
HTTP CONNECTION REQUEST
205
CONNEC-TION ALLOWED WITH OTHER PARTY ?
No
CUTOFF
ALLOW CONNECTION / CONNECT
Yes
SEND COMMAND
206
CREATE DATA
SEND DATA
SEND DATA
207
END THE COMMAND ?
No
Yes
CUTOFF
CUTOFF

FIG. 3

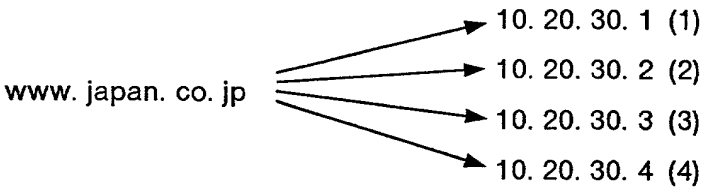

www. japan. co. jp
10. 20. 30. 1 (1)
10. 20. 30. 2 (2)
10. 20. 30. 3 (3)
10. 20. 30. 4 (4)

FIG. 4

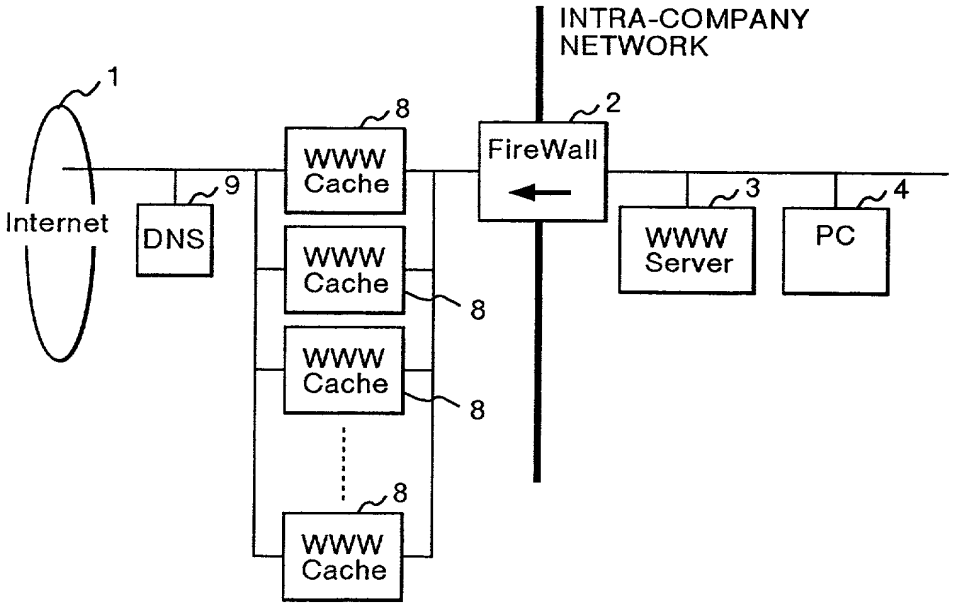

INTRA-COMPANY NETWORK
1
Internet
9
DNS
8
WWW Cache
WWW Cache
8
WWW Cache
8
8
WWW Cache
2
FireWall
3
WWW Server
4
PC

FIG. 5

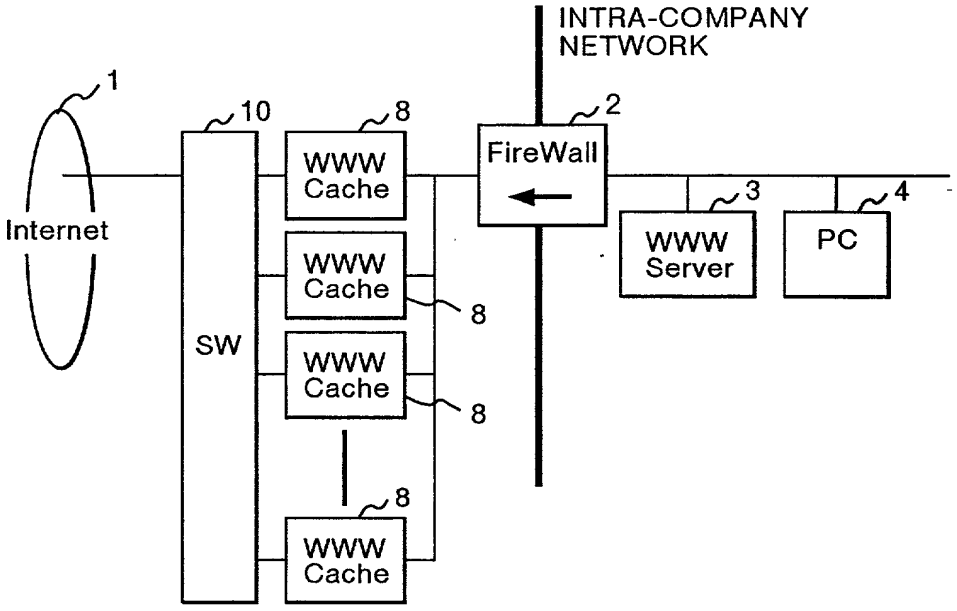

INTRA-COMPANY NETWORK
1
10
8
2
Internet
SW
WWW Cache
WWW Cache
WWW Cache
WWW Cache
FireWall
3
4
WWW Server
PC
8
8
8

FIG. 6

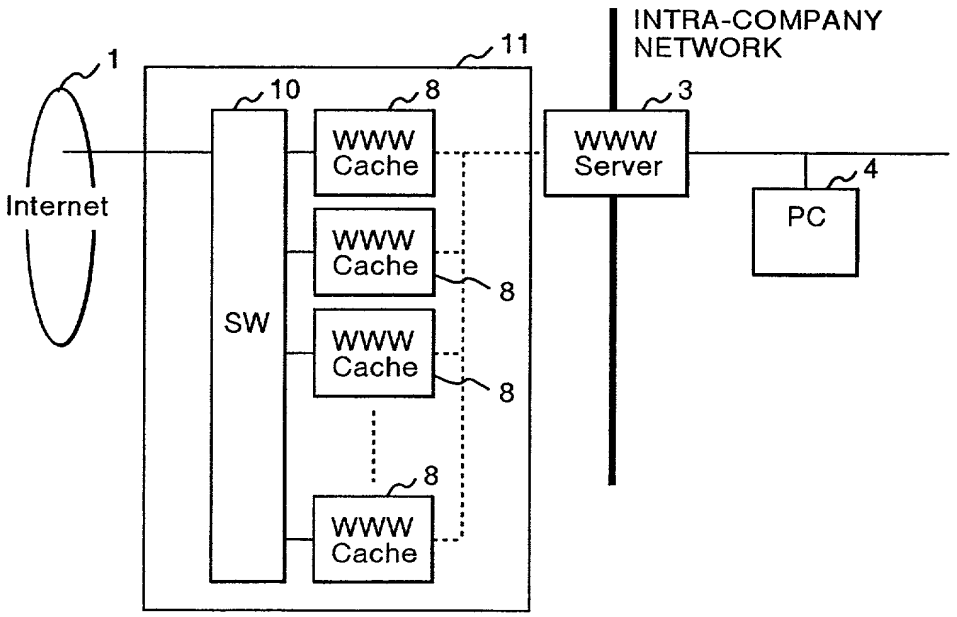

INTRA-COMPANY NETWORK
11
1
10
8
3
Internet
SW
WWW Cache
WWW Cache
WWW Cache
WWW Cache
WWW Server
4
PC
8
8
8

FIG. 7A

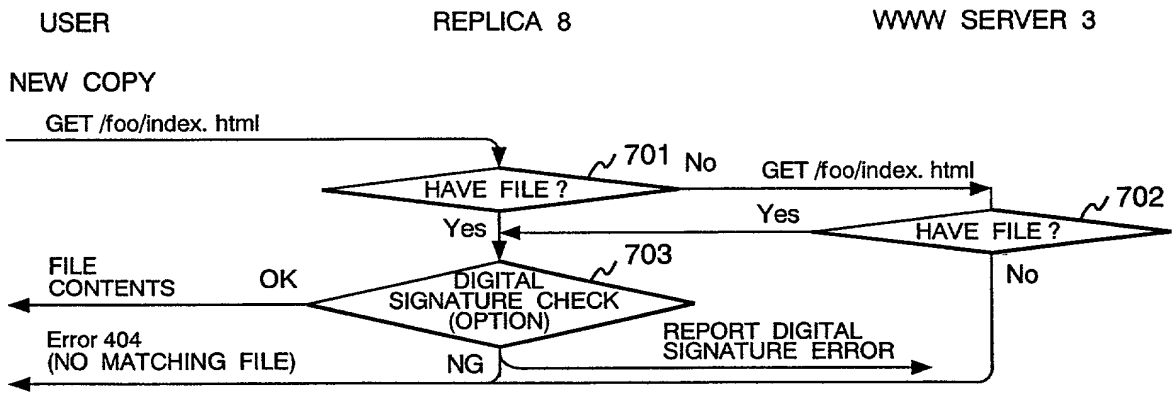


FIG. 7B

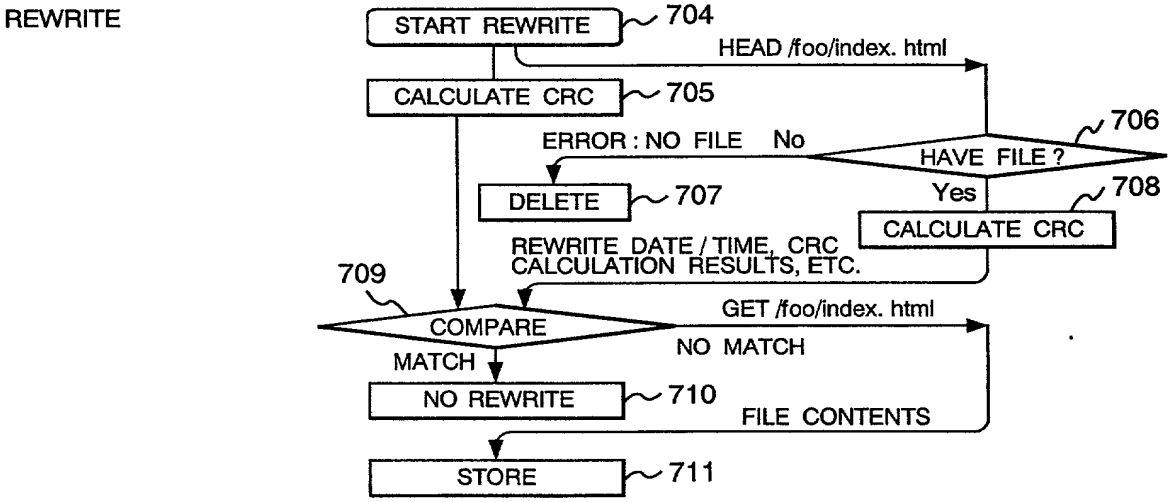


FIG. 7C

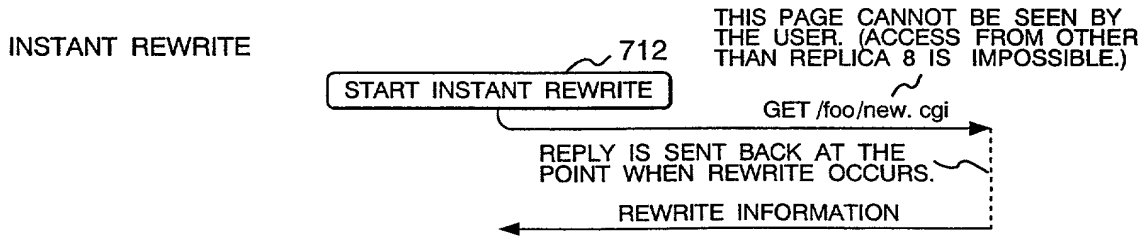


FIG. 8

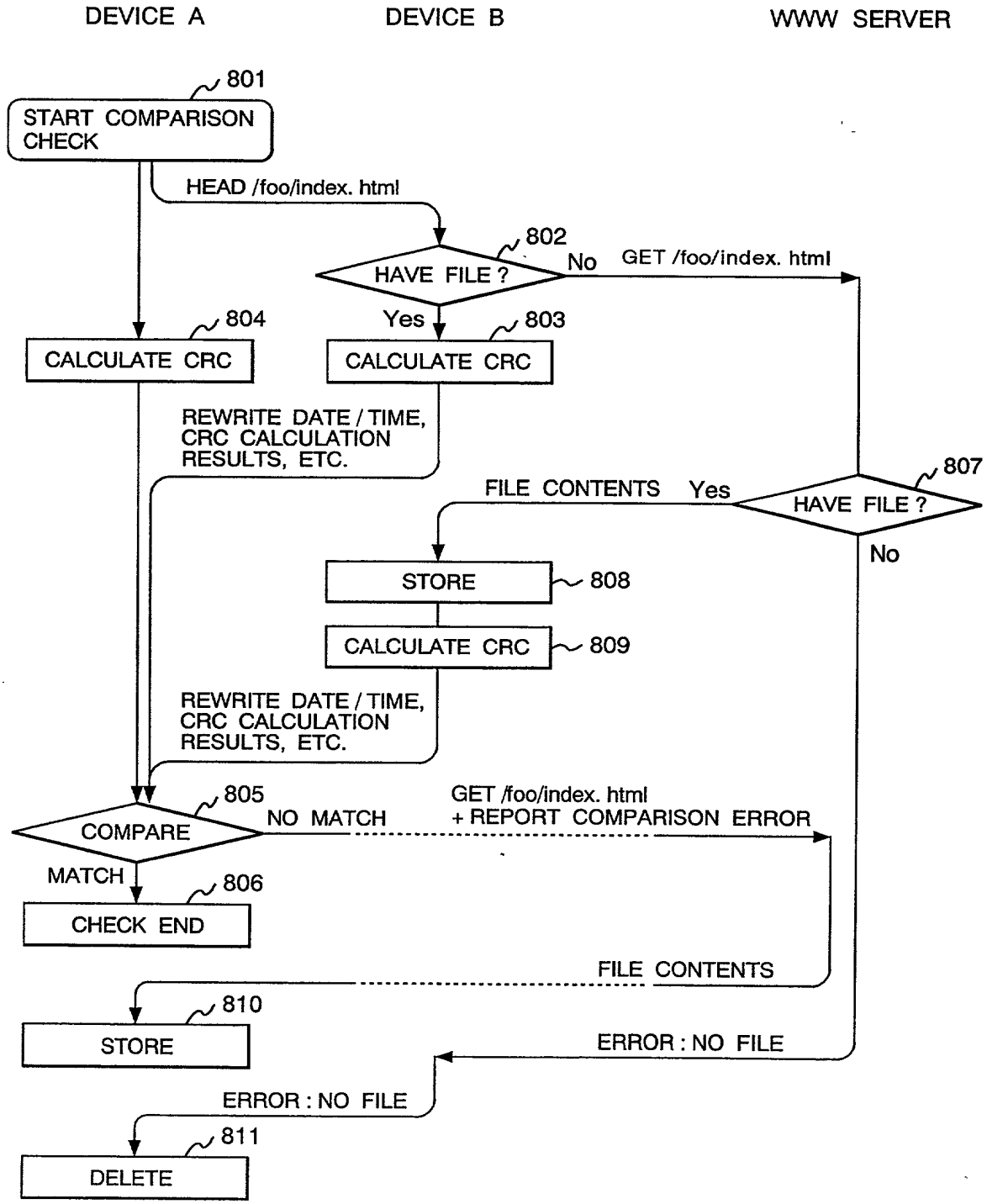

DEVICE A
DEVICE B
WWW SERVER
801
START COMPARISON CHECK
HEAD /foo/index. html
802
HAVE FILE ?
No
GET /foo/index. html
Yes
804
CALCULATE CRC
803
CALCULATE CRC
REWRITE DATE / TIME, CRC CALCULATION RESULTS, ETC.
807
FILE CONTENTS
Yes
HAVE FILE ?
No
STORE
808
CALCULATE CRC
809
REWRITE DATE / TIME, CRC CALCULATION RESULTS, ETC.
805
COMPARE
NO MATCH
GET /foo/index. html + REPORT COMPARISON ERROR
MATCH
806
CHECK END
FILE CONTENTS
810
STORE
ERROR : NO FILE
ERROR : NO FILE
811
DELETE

FIG. 9

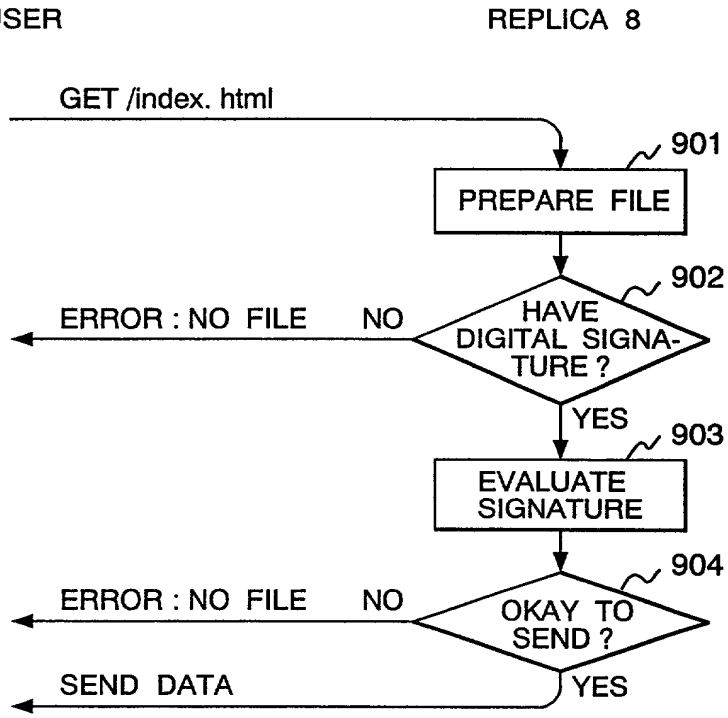

USER
REPLICA 8
GET /index. html
901
PREPARE FILE
902
HAVE DIGITAL SIGNA-TURE ?
NO
ERROR : NO FILE
YES
903
EVALUATE SIGNATURE
904
OKAY TO SEND ?
NO
ERROR : NO FILE
YES
SEND DATA

FIG. 10

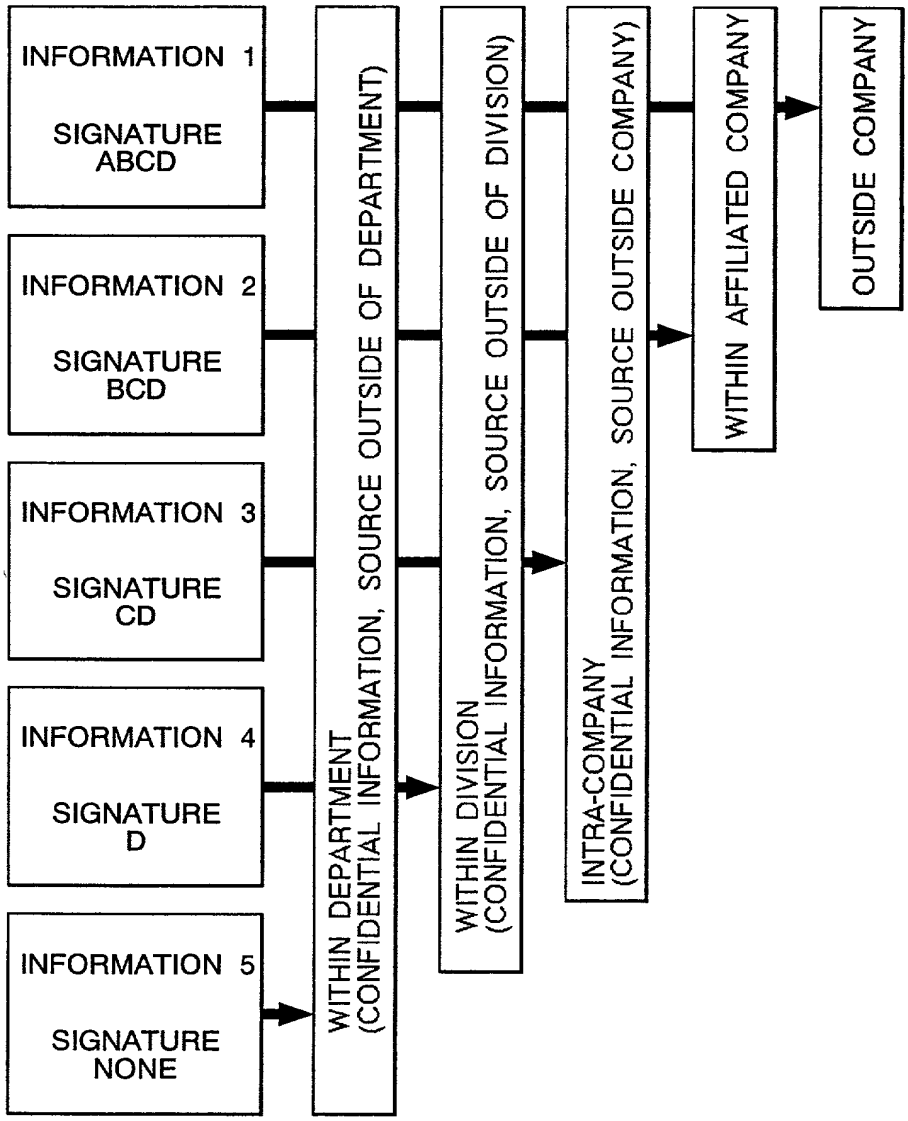

INFORMATION 1
SIGNATURE ABCD
INFORMATION 2
SIGNATURE BCD
INFORMATION 3
SIGNATURE CD
INFORMATION 4
SIGNATURE D
INFORMATION 5
SIGNATURE NONE
WITHIN DEPARTMENT (CONFIDENTIAL INFORMATION, SOURCE OUTSIDE OF DEPARTMENT)
WITHIN DIVISION (CONFIDENTIAL INFORMATION, SOURCE OUTSIDE OF DIVISION)
INTRA-COMPANY (CONFIDENTIAL INFORMATION, SOURCE OUTSIDE COMPANY)
WITHIN AFFILIATED COMPANY
OUTSIDE COMPANY

FIG. 11A

USER A (OUTSIDE COMPANY)	USER B (IN-HOUSE, OTHER BUSINESS SECTION)	USER C (IN-HOUSE, SAME BUSINESS SECTION)
IP:172.16.199.201	IP:192.20.33.44	IP:192.20.33.56

FIG. 11B

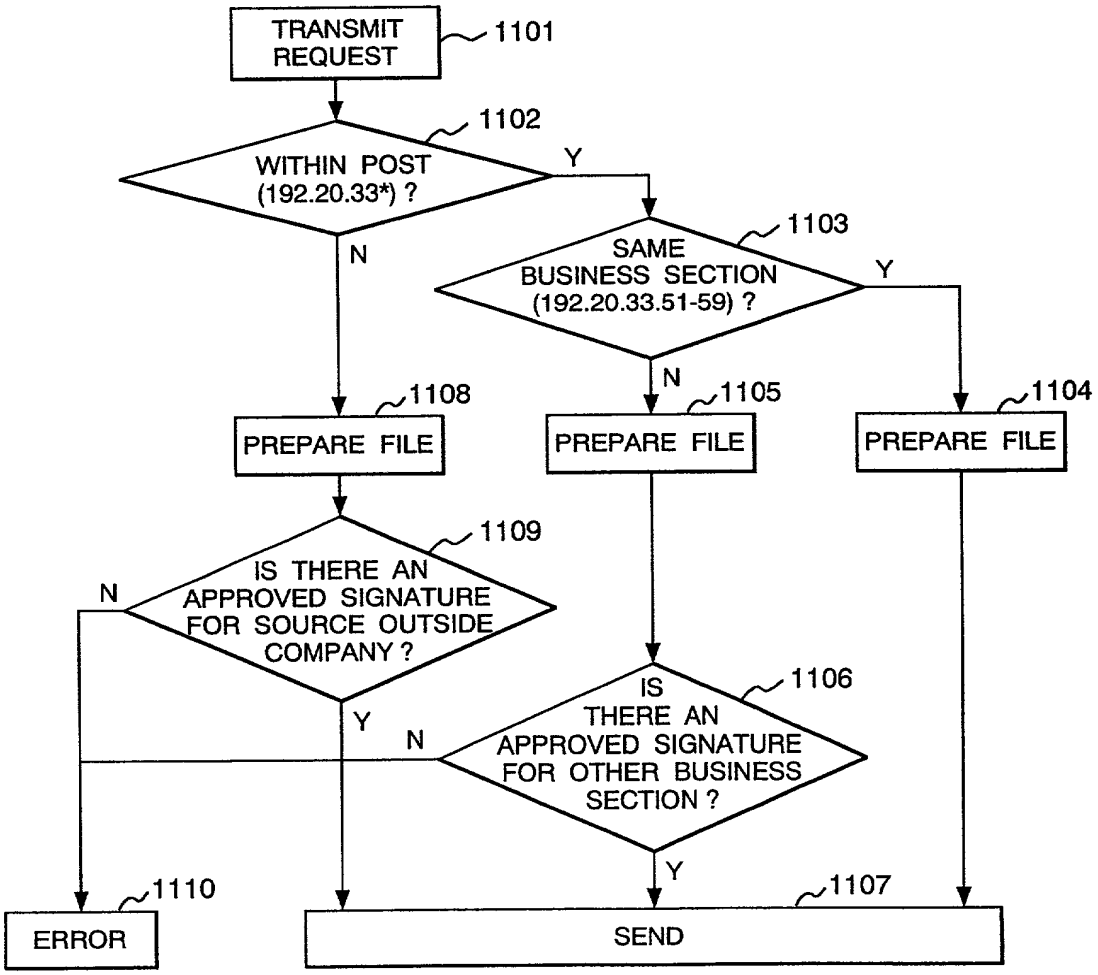
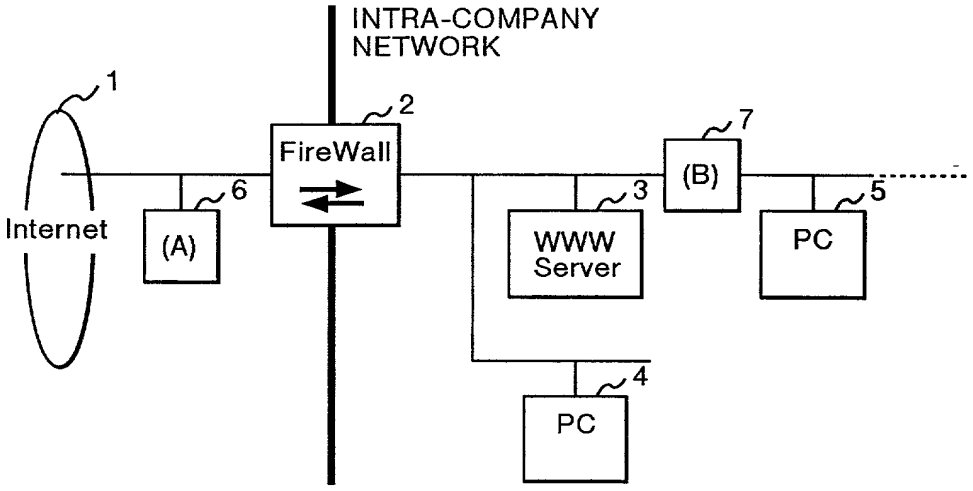
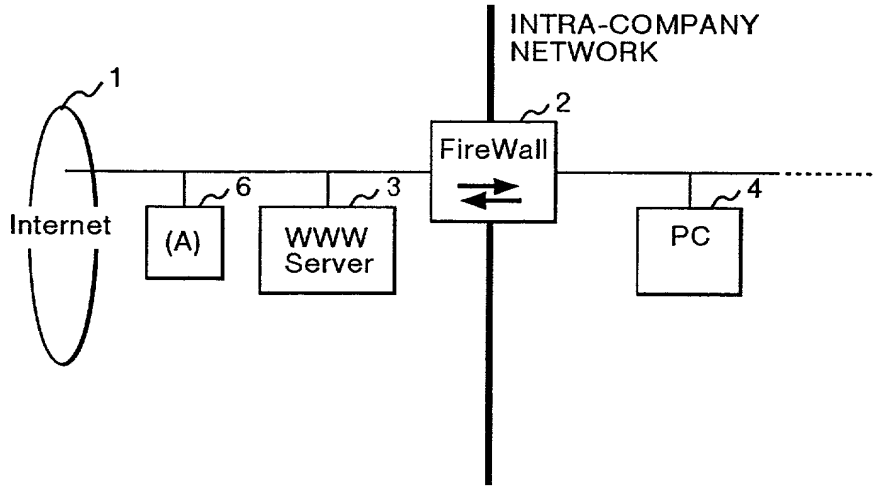


FIG. 12



PRIOR ART

FIG. 13



PRIOR ART